Interview Summary	Application No.	Applicant(s)	
	09/697,329	IISHI ET AL.	
	Examiner	Art Unit	
	Kahsay Habte, Ph. D.	1624	

All participants (applicant, applicant's representative, PTO personnel):

(1) *Kahsay Habte, Ph. D.*. (3) *Garth Dahlen, Ph.D.*.

(2) *Mark Berch, Ph.D.*. (4)_____.

Date of Interview: *15 May 2001* .

Type: a)☐ Telephonic b)☐ Video Conference
c)☒ Personal [copy given to: 1)☐ applicant 2)☒ applicant's representative]

Exhibit shown or demonstration conducted: d)☐ Yes e)☐ No.
If Yes, brief description: .

Claim(s) discussed: *all proposed claims* .

Identification of prior art discussed: .

Agreement with respect to the claims f)☒ was reached. g)☐ was not reached. h)☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: *See Continuation Sheet* .

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

i)☒ It is not necessary for applicant to provide a separate record of the substance of the interview(if box is checked).

Unless the paragraph above has been checked, THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

_____
Examiner's signature, if required

Continuation of Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Compound 1d process is not relevant to any process claim as it does not involve mixed solvent crystallization. Applicants need to replicate experiment 1d to determine if the product falls within any crystal claim.
Preparation of compound 1c should be done twice with (A) dissloving in methanol and then adding water and (B) disssolving in methanol/water and then cooling. Analysis of the product will determine which process or both gave the reported product. If the product turns out to be a compound falling within the crystal claims it would thus anticipate those claims and the process claims if Method A gave the product.
If Method A fails to give a crystal falling within crystal claims this would raise enablement issue.
Proposed claim 11 language resolves "hygroscopic degree issue"
Proposed claim 17 language resolves the temperature issue"".

OUR COMMENTS

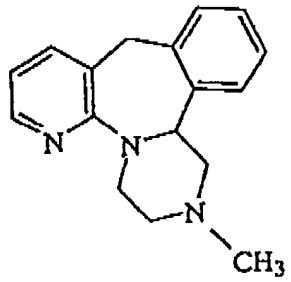
1. With respect to claims:

In consideration of the Examiner's rejection, our clients have reconstructed the claims.

Our draft of the amended claims is as follows:

Draft of amended claims

1. A crystal of a mirtazapine hydrate represented by the formula (I):

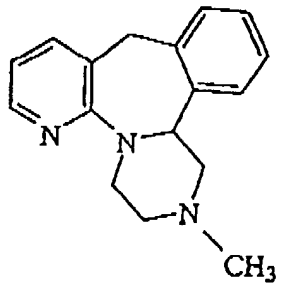


$\cdot \frac{1}{n}(H_2O)$ (I)

wherein n is an integer of 1 to 5.

2. The crystal of a mirtazapine hydrate according to claim 1, wherein n is 2 or 3.

3. A process for preparing crystals of a mirtazapine hydrate represented by the formula (I):



$\cdot \frac{1}{n}(H_2O)$ (I)

wherein n is an integer of 1 to 5,

comprising:

dissolving a crude mirtazapine in a water-soluble organic

solvent, and thereafter adding water to the resulting crude mirtazapine solution to crystallize the resulting mirtazapine hydrat .

4. The process for preparing crystals of a mirtazapine hydrate according to claim 3, wherein the water-soluble organic solvent is a lower alcohol.

5. The process for preparing crystals of a mirtazapine hydrate according to claim 3, wherein the amount of the solvent is 50 to 3000 parts by weight based on 100 parts by weight of the crude mirtazapine.

6. The process for preparing crystals of a mirtazapine hydrate according to claim 3, wherein the temperature at which the crude mirtazapine is dissolved in the solvent is 0° to 10 ℃.

7. The process for preparing crystals of a mirtazapine hydrate according to claim 3, wherein a decolorizing carbon is added to the crude mirtazapine solution.

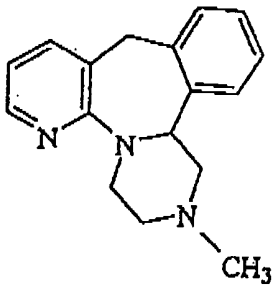
8. The process for preparing crystals of a mirtazapine hydrate according to claim 7, wherein the crude mirtazapine solution to which the decolorizing carbon is added is stirred at a temperature of 0° to 30℃.

9. The process for preparing crystals of a mirtazapine hydrate according to claim 3, wherein the amount of water is 100 to 1000 parts by weight based on 100 parts by weight of the crude mirtazapine.

10. The process for preparing crystals of a mirtazapine hydrate

according to claim 3, wherein the crude mirtazapine solution is cooled to a temperature of 0° to 10°C, and thereafter water is added to the cooled solution.

11. Anhydrous mirtazapine crystals obtained from crystals of a mirtazapine hydrate represented by the formula (I):



$$\cdot \frac{1}{n}(H_2O) \qquad (I)$$

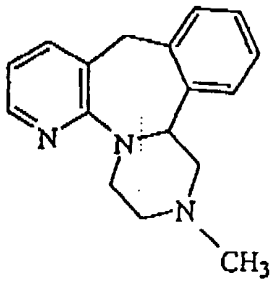
wherein n is an integer of 1 to 5,
which have a moisture content of not more than 0.6% by weight when the crystals are stored in the air having a relative humidity of 75% at 25°C under atmosperic presssure for 500 hours.

12. The anhydrous mirtazapine crystals according to claim 11, wherein the crystals have characteristic diffraction peaks in the X-ray diffraction pattern, when angles of diffraction (2θ) are 9.14, 9.38, 14.16, 18.46, 18.56 and 20.56.

13. The anhydrous mirtazapine crystals according to claim 11, wherein the crystals have a water content of not more than 0.5% by weight.

14. A process for preparing anhydrous mirtazapine crystals comprising:

drying crystals of a mirtazapine hydrate represented by the formula (I):



$$\cdot \frac{1}{n}(H_2O) \qquad (I)$$

wherein n is an integer of 1 to 5,
to give anhydrous mirtazapine crystals having a moisture content of not more than 0.6% by weight when the crystals are stored in the air having a relative humidity of 75% at 25 ℃ under atmosperic presssure for 500 hours.

15. The process for preparing anhydrous mirtazapine crystals according to claim 14, wherein the crystals of the mirtazapine hydrate are pulverized, and thereafter the pulverized crystals of the mirtazapine hydrate are dried.

16. The process for preparing anhydrous mirtazapine crystals according to claim 15, wherein the crystals of the mirtazapine hydrate are pulverized to an average particle diameter of 10 to 70μm.

17. The process for preparing anhydrous mirtazapine crystals according to claim 15, wherein the pulverized crystals of the mirtazapine hydrate are dried by heating the pulverized crystals at a temperature of 70° to 110℃.

18. The process for preparing anhydrous mirtazapine crystals according to claim 14, wherein the mirtazapine hydrate is dried under reduced pressure of 1.33 to 13300 Pa.

19. The process for preparing anhydrous mirtazapine crystals according to claim 14, wherein the mirtazapine hydrate is dried until the water content of the resulting anhydrous mirtazapine crystals becomes not more than 0.5% by weight.